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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,906	12/08/2006	Matthias Wellhoefer	10191/4094	6010

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EXAMINER

OLSEN, LIN B

ART UNIT	PAPER NUMBER
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3661

MAIL DATE	DELIVERY MODE
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12/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,906

Applicant(s)

WELSHOEFER ET AL.

Examiner

Lin B. Olsen

Art Unit

3661

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/01/2006
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on May 1, 2006 was filed before the mailing date of the first Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claim 9 is objected to because of the following informalities: The claim recites only two elements a housing and an integrator, whereas the claim is to an acceleration sensor system. The Examiner suggests that an acceleration sensor should be positively recited. The claim will be examined presuming a sensor is included in the system.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6 and 7 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A high pass filter for filtering the integrated

acceleration signal is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). A high pass filter for filtering the integrated acceleration signal is critical or essential to the practice of the invention, as stated in the specification at page 4 lines 17-18 and page 5 line 11 (where it states that "High pass filtering is necessary..."). The fact that the high-pass filter is not included in claim 6 and 7 is shown by its positive recital in claim 8. The theory of claim differentiation indicates that the high-pass filter cannot be a differentiating element in claim 8 and be incorporated in claims 6 and 7.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **6-7** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,083,276 to Okano et al. (hereafter referred to as Okano 1). Okano is concerned with a system for controlling a safety device for a vehicle.

Regarding independent **claim 6**, - A control unit for actuating a passenger protection arrangement, comprising:

a processor; - Fig. 1 element 24 – Microcomputer described at col. 3 lines 28-34

an electronic safety switch - embodied as gates (60 and 61) of Fig. 1 - that, as a function of a signal of an acceleration sensor system - sensors (20A and 20B) output signals to integrator/comparators (40) respectively, - releases an output stage independently of the processor, - The integrator/comparators (40) enable the gates (60 61) to act, - the processor actuating the output stage as a function of the signal, Processor (24) receives the signals from the acceleration sensors (20A 20B) and analyzes them, producing outputs O_A and O_B to actuates the gates (60 61) - wherein the safety switch analyzes an integrated acceleration signal as the signal of the acceleration sensor system - circuit 40 is an integrator that compares the output of the integrator to a level.- See col. 4, lines 19-31 and col. 5 lines 58-64.

Regarding **claim 7**, - The control unit as recited in Claim 6, wherein the acceleration sensor system includes an integrator for integrating the integrated acceleration signal. - See element 40, an integrator integrating the signal from the accelerator sensor. Col. 3, lines 42-61.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,178,820 to Kirjavainen et al. Kirjavainen is concerned with a sensor for measuring acceleration.

Regarding independent **claim 9**, - An acceleration sensor system, comprising:

a housing; and an integrator provided in the housing and for integrating an acceleration signal. – Fig. 1 shows a system consisting of a housing (3) with an acceleration sensor (5, 6, 7) therein. This structure is described at col. 2, lines 13- 24. Further at co. 2 lines 55-59 creation of a velocity signal (the integral of the acceleration signal) is described as included in the electronics part of the sensor.

Claim 10 is rejected under 35 U.S. C. 102(b) as being anticipated by International Publication WO 02/066995 to Water Corporation. The publication is concerned with vibration measurement.

Regarding **claim 10**, - The acceleration sensor system as recited in Claim 9, further comprising: - similar to claim 9 above, the publication shows in Fig. 1, an accelerometer (12) and an integrator (18) as part of a measurement device – page 2, line 20-24.

a high pass filter for filtering the acceleration signal – further Fig. 1 shows a high pass filter (14) incorporated in the device. In the 3rd paragraph of page 6, it is stated that these components may be integrated into a single chip via large scale integration. Such a chip would require a housing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okano 1 as described above with regard to claims 6 and 7 in view of U.S. Patent No. 5,431,441 to Okano (hereafter referred to as Okano 2). Okano is concerned with a system for controlling a safety device for a vehicle.

Regarding **claim 8**. - The control unit as recited in Claim 6, further comprising: a high pass filter for filtering the integrated acceleration signal. - Okano1 does not show filtering the acceleration signal. However, Okano 2 shows in Figs 1 and 4 utilizing a high frequency band pass filter(9) to feed an integrator (10) for making the collision judgment. It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate prior art elements used in the safety device art according to known methods to yield improved collision detection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 4,405,899 to Wuzburg for a high pass filter and integrator implemented in a CMOS circuit;

U.S. Patent No. 5,182,459, to Okano for using both analog and processor-based to identify a collision;

U.S. Patent No. 5,440,485 to Okimoto et al. for safety interlocks of multiple collision determining algorithms;

U.S. Patent No. 6,636,791 to Okada for filtering an acceleration signal with both high and low pass filters;

U.S. Patent No. 6,970,778 to Feser et al. for multiple acceleration sensors interlocked before triggering a passenger restraint system; and

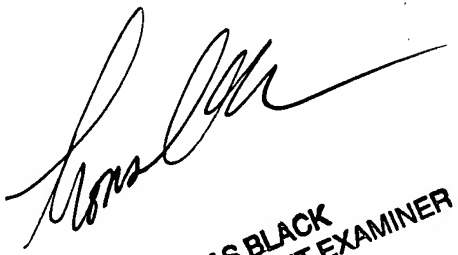
U.S. Patent Publication No.2006/0167603 to Brandl et al. for an interlocked collision determination method. .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin B. Olsen whose telephone number is 571-272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LO



THOMAS BLACK
SUPERVISORY PATENT EXAMINER